UNIVERSITI TEKNOLOGI MARA

CLAY MINERAL INVESTIGATION OF SEDIMENT IN THE NORTHERN REGION OF SELANGOR

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Thesis submitted in fulfilment
of the requirement for the degree of
Master of Art and Design

Faculty of Art and Design

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Clay is the main material for a traditional ceramic manufacturing and is an integral raw material for some refractories. Because of its special characteristic clay has becomes, an important commodity for the world. Ceramic manufacturing is one of the largest industries in Malaysia. This situation happen related with the amount of ceramic raw materials itself that supports the development of the industry. Moreover the contribution by artist and researcher is one of the factors of this improvement. The development of clay was enhanced by the ceramic production whether large or small scale industries. Through appropriate study in conducting research and development on clay will enable ceramic artist, academician and university students to embark new sources of clay for ceramic production. Sabak Bernam is one of the areas in Selangor that has abundant sources of clay which can be utilized for ceramics industries, small and big. Recently, the areas are currently active with ceramic craft entrepreneur program. The craftsmen have been using the clay; despite little understanding the properties and characteristics. It is important to do basic physical laboratory test to establish a data bank which can be utilize by the entrepreneur. The objective of this research is to study the physical properties of the local clay through shrinkage, water absorption, modulus of rapture and mineral content tests. The test data will be compared with Sayong clay data, as to determine the similarities and differences. Therefore, the clay study will go through the process of ceramic fabricating by press mould technique to determine the performance of the clay. The result of the development of clay from Sabak Bernam will enhance the ceramic craft production specifically in that area. Hence, the clay will be commercial such as the existing clay in Malaysia.

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